Research IT Solutions Engineer (IT@JH Research IT Solutions)

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IT@JH Research IT Solutions is seeking a highly collaborative, user-centered ***Research IT Solutions Engineer***, who will provide technical engineering and solution design services for a range of IT solutions developed to meet the diverse needs of the Johns Hopkins University (JHU) and Johns Hopkins Medicine (JHM) research community. This role will contribute to the critical delivery of a new set of service offerings for the Research IT Solutions unit being rolled out under the Office of the Deputy CIO, as part of Johns Hopkins' expanding central IT support for the research mission. Research IT Solutions offers a coordinated experience to investigators through the design and facilitation of secure, cutting-edge IT solutions and services, developed and supported in collaboration with key IT teams and support partners across the institution. Research IT Solutions bridges the gap between technology and research, helping investigators navigate the complexities of IT throughout the research lifecycle. The Research IT Solutions Engineer will draw on core skills in software development practices, continuous integration and deployment, research application support, cloud platform administration, data and storage management, and AI/ML workflow enablement to deliver solutions that address the evolving needs of investigators while ensuring alignment with institutional best practices.

Specific Duties & Responsibilities

Analysis & Requirements Gathering

- Define complex business/clinical/education problems by meeting with clients to observe and understand current processes and the issues related to those processes. Provide written documentation of findings to share with the client and other IT colleagues.
- Gather complex system requirements by meeting with clients and researching existing technology to understand the business requirements and possible solutions for new applications.

Design & Development

- Develop detailed tasks and project plans by analyzing project scope and milestones for complex projects to ensure product is delivered quickly according to software lifecycle standards.
- Write functional/technical specifications from the complex system requirements, putting them into functional and technical descriptions for use by programmers and business analysts to develop technical solutions.
- Develop/change data input, files/database structures, data transformation, algorithms, and data output by using appropriate computer language/tools to provide technical solutions for complex application development tasks.
- Document code and associated processes by adhering to development methodologies, adding code comments and appropriate documentation to various knowledge-base system(s) to simplify code maintenance and to improve support.
- Provide monitoring and guidance in application design and development to more junior staff.
- Provide thought leadership in designing and developing innovative integrated solutions.

Testing & Documentation

- Create and document complex test scenarios using the appropriate testing tools to validate and verify application functionality.
- Test all changes by using the appropriate complex test scenarios to ensure all delivered solutions work as expected and errors are handled in a meaningful way.
- Author and maintain documentation by writing audience-appropriate materials to serve as technical and/or end-user references.
- Mentor junior staff in testing tools and technologies by reviewing their work.

Implementation & Maintenance

- Implement changes by adhering to the change management policies and procedures for any given project to communicate to all parties the nature, significance, and risk factors of the solution.
- Monitor changes and resolve complex problems by responding as they occur, by reviewing all processing and output of the newly implemented solution, and by proactively ensuring the solution works successfully to satisfy the customer requirements and to provide a smooth transition to the new solution.
- Provide support by investigating and resolving issues, including complex issues to ensure prompt, effective service.

Minimum Qualifications

- Bachelor's Degree.
- Five years related experience.
- Additional education may substitute for required experience and additional related experience may substitute for required education beyond a high school diploma/graduation equivalent, to the extent permitted by the JHU equivalency formula.

Preferred Qualifications

- Four years of relevant professional experience, or an equivalent combination of education and experience.
- Experience supporting research computing projects across diverse domains, including data science, analytics, and computational workflows.
- Familiarity with cloud platforms and services (AWS, Azure, or Google Cloud), including emerging cloud-native research tools.
- Knowledge of research-focused platforms such as collaborative computing environments, data processing frameworks, or electronic research tools (e.g., electronic lab notebooks).
- Exposure to containerization, workflow orchestration, and modern application environments used in research contexts.
- Experience supporting research applications and assisting with software development practices, CI/CD pipelines, and version control systems.
- Proficiency in at least one coding or scripting language (e.g., Python, R, Bash, or similar) for workflow automation and application support.
- Familiarity with collaboration and productivity platforms (e.g., Microsoft 365, GitHub, Jira).
- Ability to contribute to documentation and provide consultation that helps align technical solutions with research needs.
- Communication Skills - ability to communicate clearly with both technical and non-technical audiences, while being respectful of diverse perspectives.
- Data Sensitivity and Compliance - familiarity with data protection principles and relevant regulations such as HIPAA and FERPA.

Technical Skills and Expected Level of Proficiency

- Agile Methodology - Intermediate
- Algorithms - Intermediate
- Application Programming Interface (API - Intermediate
- CI/CD - Intermediate
- Cloud Serverless Computing Architecture - Intermediate
- Code Review - Intermediate
- Data Architecture and Design - Intermediate
- Data Structures - Intermediate
- Debugging - Intermediate
- Dev Ops: Intermediate
- JIRA - Intermediate
- New Product Development - Intermediate
- Secure Coding - Intermediate
- Service Orientated Architecture - Intermediate
- Software Design Patterns - Intermediate
- Software Development Life Cycle - Intermediate
- Software Engineering - Intermediate
- Unit Testing - Intermediate

Classified Title: Software Engineer
Job Posting Title (Working Title): Research IT Solutions Engineer (IT@JH Research IT Solutions)
Role/Level/Range: ATP/04/PE
Starting Salary Range: $73,300 - $128,300 Annually (Commensurate w/exp.)
Employee group: Full Time
Schedule: Mon-Fri 8:30am-5:00pm
FLSA Status: Exempt
Location: Remote
Department name: IT@JH Research IT Solutions
Personnel area: University Administration
The listed salary range represents the minimum and maximum Johns Hopkins University offers for this position, based on a good faith estimate at the time of posting. Actual compensation will vary depending on factors such as location, skills, experience, market conditions, education, and internal equity. Not all candidates will qualify for the highest salary in the range. Johns Hopkins provides a comprehensive benefits package supporting health, career, and retirement. Learn more: https://hr.jhu.edu/benefits-worklife/. Equal Opportunity Employer
All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or status as a protected veteran. EEO is the Law https://www.eeoc.gov/sites/default/files/2023-06/22-088_EEOC_KnowYourRights6.12ScreenRdr.pdf